PRELIMINARY

Health Assessment for

CHEMSOL INC.

PISCATAWAY, MIDDLESEX COUNTY, NEW JERSEY

CERCLIS NO. NJD980528889

Agency for Toxic Substances and Disease Registry
U.S. Public Health Service

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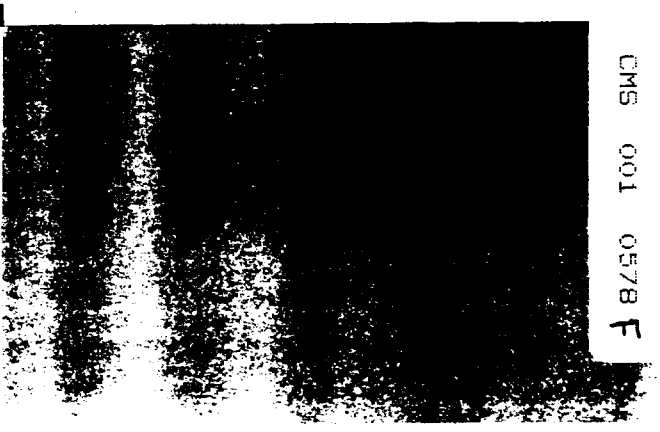

THE ATSDR HEALTH ASSESSMENT: A NOTE OF EXPLANATION

Section 104(i)(7)(A) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended, states "...the term 'health assessment' shall include preliminary assessments of potential risks to human health posed by individual sites and facilities, based on such factors as the nature and extent of contamination, the existence of potential pathways of human exposure (including ground or surface water contamination, air emissions, and food chain contamination), the size and potential susceptibility of the community within the likely pathways of exposure, the comparison of expected human exposure levels to the short-term and long-term health effects associated with identified hazardous substances and any available recommended exposure or tolerance limits for such hazardous substances, and the comparison of existing morbidity and mortality data on diseases that may be associated with the observed levels of exposure. The Administrator of ATSDR shall use appropriate data, risk assessments, risk evaluations and studies available from the Administrator of EPA."

In accordance with the CERCLA section cited, ATSDR has conducted this preliminary health assessment on the data in the site summary form. Additional health assessments may be conducted for this site as more information becomes available to ATSDR.

PRELIMINARY HEALTH ASSESSMENT
CHEMSOL INC.
PISCATAWAY, NEW JERSEY

Prepared by:
Office of Health Assessment
Agency for Toxic Substances and Disease Registry (ATSDR)

Background

The Chemsol Inc. Site (CIS) is listed by the U.S. Environmental Protection Agency (EPA) on the National Priorities List. The inactive 12-acre site is located in Piscataway (Middlesex County), New Jersey. EPA suspects that 40 drums of chemical waste are buried on-site. Access to the site is restricted. Removal actions have not occurred. As part of the Remedial Investigation, existing soil contamination has been defined and a groundwater pumping test program was conducted. Currently, action on the site involves evaluating a proposed remedial plan for recovery and treatment of groundwater.

The following document was reviewed by ATSDR: The Hazard Ranking Package, August 11, 1982. This document forms the basis of this Preliminary Health Assessment.

Environmental Contamination and Physical Hazards

Preliminary on-site sampling results have identified various volatile organic compounds. They include chloroform, tetrachloroethylene, trichloroethylene, carbon tetrachloride, toluene, and benzene. Neither the sampling results nor the environmental media where the contaminants were found were reported. Physical hazards were not reported.

Potential Environmental and Human Exposure Pathways

Potential environmental pathways include migration of contaminated groundwater, surface water, on-site soils, and volatilization of contaminants in ambient air. In addition, bioaccumulation of contaminants in fish, water fowl, livestock, and commercial agricultural products may be another environmental pathway.

Potential human exposure pathways include ingestion and direct contact with groundwater, surface water, soil, and possible ingestion of bioaccumulated contaminants in the food chain. In addition, inhalation of volatilized contaminants or contaminants entrained in air during remedial operations is another potential source for human exposure.

Demographics

There are about 36,000 people living within a 3-mile radius of the site. The distance from CIS to the nearest occupied building is 400 feet. No further demographic information was provided.

Evaluation and Discussion

On-site groundwater and surface water are contaminated. There are private and municipal wells in potable use within the vicinity of the site. Monitoring well data confirm that area wells are not contaminated with the site-related contaminants mentioned above. It has been recently reported that off-site production wells (the Parkway Plastics production wells) are contaminated. However, no further information as to whether the this production well supplies potable water or is a groundwater monitoring well. Moreover, no further information was provided to determine if off-site contamination is site-related. In either case, off-site groundwater sampling of the production well(s) is necessary for determining potential public health concerns. Off-site area surface water (approximately 2,200 feet) is used for recreational fishing. No further information has been provided.

A Site Inspection (May 1982) reported 40 drums on-site. However, New Jersey Department of Environmental Protection Officials have reported that there are no leaking drums left on the surface of the site. There is still the possibility of buried drums existing on-site. Approximately 6 of the 12 acres of property were estimated to be used for past disposal practices. On-site soil has been reported to be contaminated as determined, by visible observation. No further on-site sampling information has been provided except that removal of approximately 2,000 cubic yards of polychlorinated biphenyls is underway.

Air sampling measurements and food chain analysis have not been reported. It has been reported however, that it is thought that the chemical solvents on-site are "not likely to result in a food chain problem." However, fishing has been reported to occur in the area. No further food chain information has been reported. ATSDR has prepared, or will prepare, Toxicological Profiles on the site contaminants noted above.

Conclusions and Recommendations

Based on available information, this site is considered to be of potential public health concern because of the risk to human health caused by the possibility of human exposure to hazardous substances. Direct contact and ingestion of contaminated groundwater, surface water, and on-site soils by on-site remediation workers and area residents are the possible routes of potential human exposure.

Additional information on contaminants released, populations potentially exposed, and environmental pathways through which the contaminants can reach these populations is necessary. At a minimum, future investigations

of this site should include a characterization of the site and site contaminants, the on-site waste disposal drums, an area well survey, and a characterization of the hydrogeology of the area.

Further environmental characterization and sampling of the site and impacted off-site areas during the Remedial Investigation and Feasibility Study (RI/FS) should be designed to address the environmental and human exposure pathways discussed above. When additional information and data, such as the completed RI/FS, are available, such material will form the basis for further assessment by ATSDR, as warranted by site-specific public health issues.